TITLE OF THE RESEARCH

Socio-Economic Impact of Organic Farming: A Case Study of Govindpur Block, Dhanbad District [Jharkhand]

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BINOD BIHARI MAHTO KOYLANCHAL UNIVERSITY,

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BINOD BIHARI MAHTO KOYLANCHAL UNIVERSITY, DHANBAD, JHARKHAND

Month……. **Year……**

Socio-Economic Impact of Organic Farming: A Case Study of Govindpur Block, Dhanbad District [Jharkhand]

SUMMARY

'Health is Wealth' proverb is originated since Ancient times. But these days quality of food is an important issue because use of pesticides, hazardous chemicals, fertilizers and pesticides are in practice of farming. To save the human life it is necessary to change the farm practice by adopting Organic Farming with use of natural fertilizers[organic manure], vermi-compost,vermi-culture etc. This will also be helpful for environmental as well as soil protection. It is interesting to quote that the Union Govt. in its Budget[2023-24] has emphasized upon Organic Farming and their extension in cultivable land. There is provision of subsidy particularly to small hold and marginal farmers who are interested to choose Organic Farming.

Keeping in view significance of the topic I have chosen Govindpur Block falling into Dhanbad District which is agriculture dominated area. Dhanbad District is basically known for coal mining and called '**Coal Capital'** of India. However, it is fact that several blocks of this district namely, Baliyapur, Sindri, Baghmara, Topchanchi and my location of study i.e. Govindpur is predominated by agriculture and allied activities. The mainstay of people living in these blocks are agriculture and allied activities.

This is to mention here that in Govindpur Block **"vermi-compost"** and **"vermi-culture"**are part and parcel of farm practices. Regarding Geographical Area of this block which is 329.71km^2including 40 Gram Panchayats and 225 villages.[en.m.wikipedia.org.translate.goog]. This Study is related to Socio-Economic Impact of Organic Farming on farmers of this block. For scientific and analytical study and proper findings statistical tools will be used on above 240 samples. Both Primary and secondary source of data will be used. I hope this study will be helpful for all stakeholders such as Farmers, Government, NGOs, Agencies, Researchers etc.

1 INTRODUCTION

1.1MEANING OF ORGANICFARMING

Organic farming may be defined as an agriculture process that uses biological fertilizers and pest control, acquired from animal or plant waste. In other word organic farming is a method of agriculture production that excludes the use of synthetic substances as pesticides, synthetic medicines or fertilizers and genetically modified organism.

TYPES OF ORGANIC FARMING

Organic farming may be categorized into-

- Pure Organic Farming
- Integrated Organic Farming
- Crop Rotation
- Compost
- Soil Management
- Control Pests Biologically

FATHER OF ORGANIC FARMING

The British Botanist **Sir Albert Howard** is known as the father of modern organic agriculture. He had worked in India as an Agriculture Researcher. He was very much inspired from the traditional and sustainable farming practices and therefore advocated for their adoption in the western countries.

BENEFITS OF ORGANIC FARMING

Following benefits of organic farming are listed below –

a. **Healthier animals and healthier meal**- the animals only eat grain and certified organic feed. The livestock on organic farms in free to roam.

b. **No additives**- it does not includes additives or preservatives in organic based product and therefore it does not effects health.

c. **No GMOs** - Organic Farming is free from Genetically Modified Organism, that are strictly banned at Graig farm.

d. **No use of chemical pesticides**- organic farms only use natural method of pest control and therefore it ensures that no harmful chemicals are entering in body.

e. **Better for environment** – organic farms uses sustainable methods to protect animals, promote biodiversity, maintaining Soil Fertility and able to reduce CO_2emissions.

1.2ORGANIC FARMING IN INDIAN PRESPECTIVE

Food quality and safety of health are main concern of Indian consumers these days. These have created a significant demand of organic produce. There is a major shift from traditional farming to organic farming. This significantly contributes to the overall economy, ecology, social welfare improvements.

Organic Farming as a measure to improve Economic Condition of the Farmers –

Organic Farming allows farmers to get better prices for their produce due to growing demand for organic products. A large number of Indian farmers are now make practice of organic methods and with government efforts they are getting certification for their organic products. For example, The **Paramparagat Krishi Vikas Yojana[PKVY]**, promotes clusterbased organic farming with Participatory Guarantee System [PGS] certification. The scheme covers assistance of 50,000 Rupee per hectare for three years, of which 62 percent is given as an incentive towards organic inputs.

ORGANIC FARMING Vs GDP GROWTH

We know that there is a thrust to increase income of farmers by Six Folds. Therefore the government is covering more farming area into organic farming keeping in view of larger size of market of organic produce. The demand of organic produce is increasing day by day.

Organic agriculture has immense potential to contribute significantly towards Indian economy. The sector has positive impact on GDP growth, employment generation, export promotion and export earnings. It also promotes sustainable development. We better know that Agriculture Sector contributes around **14 percent** of GDP and employs **42 percent** of the workforce. The country has potential to become global leader in organic agriculture and can contribute significantly to GDP growth. The

future for organic farming in India depends upon as to how to increase the area under cultivation, promotion to farmer to consumer linkages and drive towards farming suitable policy. With the placement to right policies India has the potential to become global leader in organic farming.

The **National Centre for Organic Farming** was established in the year of **2004**. This is a nodal organization for promoting organic farming in the country. This organization is renamed as **National Centre for Organic and Natural Farming[NCONF]** in March, **2022.** It has **Five Regional Centers**, focusing upon capacity building by conducting training programs, workshops and providing necessary information to farmers.

AREA UNDER ORGANIC FARMING

India has placed at sixth largest country in the world in terms of total area under organic farming. As on March 31, 2024, total area under organic certification registered under the National Program for Organic Production is **101.72** lakh hectares within the country.

TABLE – 1

Top Ten States of India with largest Organic Area [N POP 2022-23]

Sl No.	State	Organic Cultivated Area[lakh ha.]	Wild Harvest collection Area [lakh ha.]	Total Organic Area [lakh ha.]
1.	Chhattisgarh	0.17	32.36	32.5
2.	M.P.	15.17	8.05	23.2
3.	Maharashtra	12.84	0.00	12.8
4.	Rajasthan	5.81	3.57	09.4
5.	Gujarat	9.36	0.00	09.4
6.	H.P.	0.11	2.02	02.1
7.	Odisha	1.95	0.04	02.0
8.	Uttarakhand	0.98	0.06	01.0
9.	U.P.	0.68	0.30	0.98
10.	Karnataka	0.82	0.03	0.8

	Other States	6.02	1.38	07.4
	India	53.92	47.80	101.72

[Source: APEDA, statistics for the year 2022-23]

It is interesting to know that India has 15.99 lakh organic products, representing highest numbers of organic farmers in the world.

TABLE – 2

Top Ten States of India with largest Organic Production [2022-23], [Fig. in Thousand Metric Tones]

Sl No.	State	Organic Farm Production	Wild Area Production	Total Organic Production
1.	M.P.	825.63	2.34	827.96
2.	Maharashtra	790.33	0.02	790.35
3.	Rajasthan	322.97	2.77	325.74
4.	Karnataka	237.09	0.42	237.51
5.	U.P.	217.52	0.15	217.67
6.	Gujarat	139.73		139.73
7.	Odisha	130.08	0.32	130.39
8.	J and K	50.23	1.57	51.81
9.	Uttarakhand	43.95	0.11	44.06
10.	Kerala	42.73		42.73
	Other states	152.66	11.77	164.44
	India	2592.93	19.47	2972.39

[Source: APEDA, statistics in the year 2022-23]

Export potential of Organic Products

During the Financial Year of 2022-23, the organic export volume is reached at **3,12,800.51** metric tonnes. Revenue from export generation is approx. **5,525.18** crore Indian Rupee. India made exports to Nations such as USA, EU, UK, Canada, Switzerland, Turkey, Australia, Ecuador, Korea, Vietnam, Japan etc.

Challenges Ahead

. Less awareness and lack of education among farmers regarding organic practices.

. High cost of Certification

. Lack of market information for organic products.

These need to be taken into consideration for their suitable policy formulation, research, infrastructure development etc. are required for sustainable growth of organic farming in India.

1.3 STATUS OF ORGANIC FARMING IN JHARKHAND

Although Jharkhand is Mineral based State but above 75 percent of population depend upon agriculture for their livelihood. This is because above 82 percent of its population live in Rural Areas.

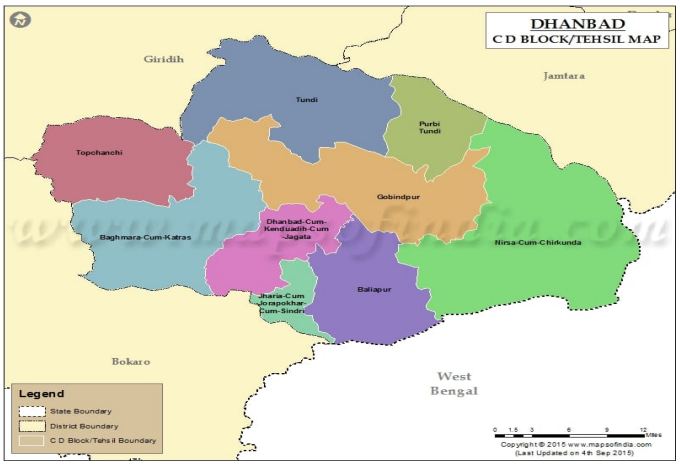
There are immense scope of Organic Farming in our State. Use of chemical fertilizers and pesticides are very less. There are several districts which do not use Chemicals in cultivation and are in a position to promote to promote it. Jharkhand state has established **"Organic Treasury"** in the year of 2012-13. After the contribution of**"Organic Farming Authority of Jharkhand" 2012-13**, three new schemes have been launched -

1. **State Organic Mission** – coverage of 15,000 hectare land for horticulture
2. **State Spices Mission** – cultivable land is 7,000 hectare for production of Turmeric, Ginger, Chilli etc.
3. **State Medicinal Mission** – for cultivation of medicinal plants

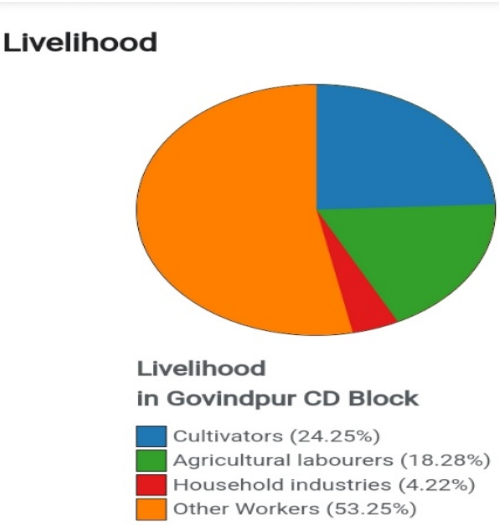
Challenges

There is need to promote **"Certification"** so that organic produce of Jharkhand may get market at Nationalas well as International Market. Role of Govt. NGOs and banks are very crucial in this regard. If Organic Farming is promoted in our state the Socio-Economic Status of Small and Marginal Farmers may be improved. This is the reason that StateBudget of Financial Year had laid emphasis upon promotion of this in the state for entire 13 districts.

DHANBAD DISTRICT



Dhanbad is known as **"COAL CAPITAL"** of India. There are several coal projects which are managed and operated by BCCL. The Semi-Urban and Urban centers of Dhanbad have consisted of Trading and Commercial activities, a source of employment generation. However, blocks such as**Baghmara, Baliyapur, Govingpur, Sindri** etc. are occupied by cultivation. This is the main stay of occupation for people living in those blocks. Paddy, Wheat, floriculture, horticulture produce are backbone for rural habitants. In cultivable areas less chemical fertilizers, pesticides are used going ahead with adoption of Organic Farming.



AREA OF THE STUDY

GOVINDPUR BLOCK

[District Statistical Handbook, Dhanbad,2017]

Geographical Status of Govindpur Block is **23^{0}50'19''** North, **86^{0}31'7''** East and its average height in 616 feet. As per 2011 census, total population of this block is **245.697** in which **52** percent is male and **48** percent is female. Total literates are **1,41,233** in which **86,332** are male and **54,901** female [2011 Census]. There are **40 Gram Panchayats** and **225 Villages**in this Block. This block is predominated by agriculture and allied activities. There is immense scope of vermin-culture, vermin-compost, organic manures and small/marginal farmers are adopting the methods/practices of Natural Farming. To promote Organic Farming in various Panchayatsfive clusters are going to develop in this block and farmers are being motivated to adopt this process. For this endeavor 700 acres of land have been targeted [livehindustan.com][1]

My study will be based upon the **Socio-Economic Impact of Organic Farming: A Case Study of Govindpur Block.**This will be the newest study for this block as well as district of Dhanbad; a milestone for agriculture reform and cultivation practices. This will certainly change the Socio-Economic Status of Farmers particularly Small and Marginal Farmers. My study will be a roadmap for going ahead with Natural Farming all over State.

Proposed study will be based upon Descriptive Analysis and both Qualitative and Quantitative techniques. Primary source of data as well as Secondary Source of Data will be obtained and by analysis of data a suitable conclusion will take place.

1.4Limitations of the study

In proposed study **Two [2] Panchayats and Four [4] Villages** will be covered through **Sampling Method.**

1.5Scope of the study

In proposed study a group of farmers will be identified/selected keeping in view dependable and independable variables related to Socio-Economic factors.

1.6Period of the study

In my proposed study data of more than five years will be considered.

2 REVIEW OF LITERATURE/STATE-OF-THE-ART

Overviewing at the health and environmental benefits of organic farming various researches are happening regarding it and views related are as:-

Adesope O. M. , Mathews E. C. , Oguzor N. S. and Ugwuga [2012][2]studied regarding organic farming in a holistic manner which combines agro- biodiversity and soil safety or protection and its adoption by the farmers.

Aryal K. D., Chaudhary P. and Pandit S.[2009][3]analyzed consumer's behaviour about willingness to pay for organic products in Kathmandu valley and its effects on health and income.

Bharti [2018][4]developed a case study about the adoption of Ecological Cultivation instead of conventional cultivation and some challenges and approaches in front of the farmers of Jharkhand.

Choudhary J. K. and Shrivastava R. R.[2015][5]studied about the challenges and prospects of cultivation in Deoghar, Jharkhand and also about the approaches regarding sustained cultivation and development of therural areas of the district.

Das S., Chatterjee A. and Pal T. K.,[2020][6]analyzed about the popularity of Organic farming due to the quality of food and its impact on human health. They also described about the context of social sustainability.

Howard A.,[1940][7]An Agricultural Testament, a book focused on the movements related to organic farming and the management of soil fertility.

Jaganath D. [2016][8]analyzed about the Organic Farming practices of Arecanut in South Africa and using organic resources and coming constraints in farms in front of the farmers

Karunakaran M. and Sadiq M.S.[2019][9]studied about the impact Fair Trade Alliance Kerala, FTAK on the farmer's income, increment on the production of organic crops , schemes to the farmers and convenient pricing.

Kumar M. , Singh C. S. , Singh A. K. , Singh S. K. and Sulochana[2018][10]focused on the production of rice with organic tools and techniques for cultivation in Jharkhand.

Majumdar B. and Sengupta A.[2021][11]in their study analyzed comparatively about Organic and Inorganic cultivation on some of the villages of Ranchi district Jharkhand.

Meena V. S. and Sharma S. [2015][12]examined the status of Uttrakhand Organic Commodity Board and problems in adopting natural farming by the farmers due to costing issues

Pandey B., Singh A.K., Singh N., Ranjan N., Kumar A., Singh R. K., and Keshava[2022][13]examined about the perception of the tribal farmers regarding practicing organic farming of Jharkhand state.

Singh N., Ranjan N., Singh A.K., Kumar A., Ranjan N., Pandey B., and Singh K.R.,[2019][14]emphasized about increasing awareness and trustworthiness of the farmers adopting sustained farming in Ranchi, Jharkhand.

Tiwari A.K., [2023][15]in his study analyzed about the place of organic agriculture in the area of achievement of sustained agriculture practices.

STATE-OF-THE-ART

We know that India has reached 140 crore population. Self-consumption level has rapidly risen. Our cultivable land is hardly 42 percent and the traditional agriculture is not beneficial for farmers. To increase the production level chemical hazardous in nature, pesticides and preservatives are used into cultivation turning into ill health of people and depletion of the fertility of the soil.

The government has targeted to increase income of the farmers by six-fold. Food habit of people has been changed. For healthier foods coarse grains like millets, Jowar, Bazra, Maize, Wheat Barley are more demanded by people. This is the reason that government is focusing upon organic farming and creating awareness so that farmers are motivated to adopt natural practices of farming. The Union govt. has allotted 100 crore rupee in Budget 2023-24 and 50 crore in Budget 2022-23 for Ecological farming. The govt. is providing subsidy to the farmers for adoption of Organic Farming.

The State of Jharkhand is also promoting Natural Farming in almost all the districts. I will use all new techniques and tools of Research to know about such govt. initiatives and their impact.

3 PROBLEM TO BE INVESTIGATED

Jharkhand is endowed with natural resources like minerals and forest reserve. But there are lack of mineral process industries. Thus the state is provider of raw materials. On the other hand there is pressure of population in agriculture and allied sectors. Various articles published in Journals, Newspapers and Study Report of Government that have identified problems like lack of **irrigation facilities, fluctuations in monsoon, droughts in plateau regions, fluctuations in crop production, low income generating capacity of the farmers, poverty and lack of awareness** of benefits of organic farming. The major challenges before organic farmers are **costing, productive practices and marketing backdrops**.

Under research problem my study will based upon Socio-Economic impact of Organic Farming in the area of Govindpur Block. My study will be eye opener for Government and farmers for promotion of Organic Farming in entire state, their economic value and overall for changing socio-economic conditions of small and marginal farmers.

4OBJECTIVE/AIM OF THE STUDY

Objectives or Aims of the Study will be followed as-

1 To Study the Status of Organic Farming in Govindpur Block.

2 To Identify Factors responsible for Organic Farming.

3 To Co-relate between Natural Practice of cultivation and Productivity.

4 To analyze the impact of Organic Farming on Economic Status of the Farmers.

5 To examine the impact of Organic Farming on Social Status of Farmers.

6 To study the opportunities and challenges of Organic Farming before Farmers.

5HYPOTHESIS OF THE STUDY

The following hypotheses will be computed in order to satisfy the above Research Objectives:-

1.There is no relationship between Natural Practices of cultivation and productivity.

2.There is no relationship between Organic Farming and Economic Status of the farmers.

3.There is no association between Organic Farming and Social Status of farmers of the region.

4.There is little impact of Organic Farming on human and soil health as well.

5. There is no significant relationship between Organic Farming and Level of Education.

6.There is no significant relationship between Organic Farming and Income of the farmers.

RESEARCH QUESTIONS

1 What is the status of Organic Farming in Govindpur Block for consecuting Five[5] years?

2 How Organic Farming affects the economic status of the Farmers and their dependents?

3 How Natural Farming affects the social status of the Farmers and their dependents?

4 How Organic Farming is affected Productivity?

5 How this concept is fruitful for Consumption Pattern?

6RESEARCH DESIGN AND METHODOLOGY

For any research Data Collection is important. It will be based upon hypothesis drawn and objectives of the study will lead to make co-relation between dependent and independent variables.

Research design will be followed as:-

. Selection of the Area of the Study **– Govindpur Block**

. Study Units – **Two Panchayats and Four Villages of the Block**

. Method of Research**- Sampling Method**

. Techniques - **Both Qualitative and Quantitative Techniques will be followed**

. Research Type -My Research will be Descriptive and Analytical in nature

6.1Size of the Sample and Techniques

My study will based upon **240 samples** which will be collected through Random Sampling Techniques. Statistical tools like **Graphs, Tables, Measures of Central Tendency**and Testing methods like **T-test and Chi-Square test** will be followed.

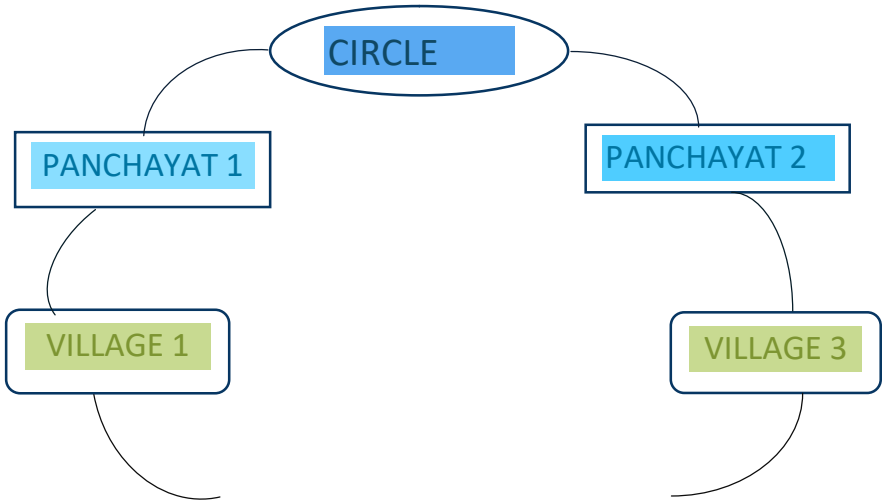
6.2 Sources and Tools of Data Collection

In my study primary and secondary source of data will be used. Primary data which is known as fresh, first hand or raw data collected by the researcher self, will be collected through questionnaires based upon interviews during survey. Secondary data is second hand data or reference based information, will be collected through Agriculture Centre Dhanbad, Newspapers, Article published in referred Journals, Books, Periodicals, NGOs working in the area.

6.3 Research Variables

Variables of the study will be classified into – **a. Dependent b. Independent Variables** Dependent variable includes **quantity of the production, productivity, income, social status** whereas Independent variables will be factors to **organic farming technique**.

6.4 PROPOSED RESEARCH WORK – SAMPLE FRAMEWORK



VILLAGE 2

VILLAGE 4

6.5 Data Analysis

First Stage - Descriptive analysis of Data will be based upon Sample Framework. This will be related to Organic Farming and Socio-Economic impact. In this stage of study **Mean, Median, Mode and Other forms of Central Tendency, Pie-chart, Bar-chart, Graphs and Diagrams** will be used.

Second Stage – For further analysis to establish cause-effect relationship dependent and independent variables should be studied. For this purpose, **Co-relation, Regression, Equation, Test like t-test, Chi-square test, Z-test** will be followed**.**

Analysis and Testing of Variables used in Hypothesis and Research Questions

Sl no.	**HYPOTHESIS**	**ITEMS**	**VARIABLES**	**TOOLS**	**TESTS**
1.	There is no relationship between Productivity and Natural Practices of Cultivation.	Productivity X_1	Natural process of Farming Y_1	Mean, Median, Mode, Standard deviation, Co-relation,Regression	Chi-Square Test and Z Test
2.	There is no relationship between Economic Status of the farmers and Organic Farming	Economic Status X_2	Organic Farming Y_2	Mean, Median, Mode, Standard deviation,	Chi-Square Test and Z Test

				Co-relation,Regression	
3.	. There is no association between Social Status of the Farmers and Organic Farming.	Social Status X_3	Organic Farming Y_2	Mean, Median, Mode, Standard deviation, Co-relation,Regression	Chi-Square Test and Z Test
4.	There is little impact of Organic Farming on Human and Soil Health as well.	Human Health X_4 Soil Health X_5	Organic Farming Y_3	Mean, Median, Mode, Standard deviation, Co-relation,Regression	Chi-Square Test and Z Test
5.	There is no significant relation between Organic Farming and Level of Education.	Level of Education. X_6	Organic Farming Y_3	Mean, Median, Standard deviation, Co-relation,Regression	Chi-Square Test and Z Test

7SIGNIFICANCE OF THE STUDY

Organic Farming is related to “Human health” and “Soil health”. The consumption pattern is fastly changing and there is huge demand for organic produce. This is the reason that Govt. of India and several State Governments are focusing upon natural

practice of cultivation. There is provision of subsidy also to farmers who have adopted such method and practices of farming. My study is the newest in the Area and I strongly feel that my findings will be a benchmark for all stake-holders particularly State govt. and farmers.

8 FUTURE WORK

This study will be helpful for future Research. I strongly feel that other Researchers will go ahead with other facets of the subject content.

9PROBABLE CHAPTRISATIONS

1. Introduction
2. Review of Literature and Research Methodology
3. Impact of Organic Farming on Productivity
4. Socio-Economic impact of Organic Farming
5. Data Analysis and Interpretation
6. Findings, Conclusion and Suggestions
7. References

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